**Technology-based Instruction**

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| sushi-monster-12mk1gf.png | “Sushi Monster is a fun and effective way to practice addition and multiplication. Students work in reverse to solve problems. Each round begins with a set of target numbers. The chef puts numbered plates of sushi on the counter, and kids must choose the correct combination of plates to meet the target, thereby feeding the sushi monster. If correct, the monster gobbles up the sushi. If incorrect, the hungry monster is not happy! Kids unlock the next level by hitting at least 12 of the 14 target numbers. Players get all new numbers when replaying a level.”  <https://www.graphite.org/app/sushi-monster> |
| **Tennessee’s State Mathematics Standards | Grade 3**  **Operations and Algebraic Thinking: Multiply and divide within 100.**  [CCSS.MATH.CONTENT.3.OA.C.7](http://www.corestandards.org/Math/Content/3/OA/C/7/) Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. | |

**Implementation:**What happened in class?

* I informed the students that they would be playing a game on the iPad.
* Before distributing iPads to the class, I went over the expectations of the use and treatment of the iPads.
  + Remain seated while playing with the iPads
  + It is acceptable to talk to your neighbor while playing and to ask them for help with a problem if you need it
  + No hitting, slinging, slamming the iPads down, etc. at any time. This is a no-tolerance rule. Students who break this rule will forfeit their iPad and will not be allowed to continue playing.
  + Food and drinks must be removed from the students’ desk while playing with the iPads.
  + All classroom behavior and conduct rules apply during this activity.
* I told the students that they would be participating in a multiplication review game called Sushi Monster. I showed them an example game on my iPad and introduced them to the basic format and concept of the game.
* I instructed students to take out their multiplication charts for reference if they get stuck on a problem. I informed them that it would be acceptable to speak to their neighbor during game play and ask them for help with a problem if they get stuck.
* I distributed the iPads to the class. Each child received one iPad.
* I instructed students on how to open up the Sushi Monster app and walked them through the game set-up (see details below in “Copy of directions provided” section).
* Students began playing Sushi Monster on their own.

**What did it look like?**

Students were excited to hear that they were going to be playing on iPads! I was able to introduce the activities without any issues. Many students stated that they had prior experience with iPads and/or iPhones/iPods, so they had a basic understanding of how to use the technology. I saw most students referring to their multiplication chart many times during this activity for help. Students had a great time!

**Copy of directions provided for the students in order to complete the activity:**

Verbal directions were given to the students in regards to how to play Sushi Monster.

* Turn iPad on by pressing the home button at the bottom of the screen.
* Touch the Sushi Monster icon to open the app
* Press the “Play” button on the screen
* To begin, choose addition, level 1 in order to become familiar with the game
* The Sushi Monster will appear in the middle of a round table. There will be a number around his neck. Students must choose which two numbers on the table will add up to equal the number hanging from the Sushi Monster’s neck.
* Once the students think they have the answer, select the two numbers by touching them on the screen.
  + If the student’s answer is correct, the Sushi Monster will have a new, different number around his neck. Students should repeat the process until the level is complete.
  + If the student’s answer is incorrect, the Sushi Monster will throw the student’s selections back to the table. The student will have an opportunity to try again until they select the correct answer.
* Once the students played a round of Sushi Monster addition, they were instructed to press the “levels” option on the screen to return to the main menu. From here, they are to select Multiplication, level 1.
* Game play will be the same as it was with addition, only this time they must select two numbers that multiply together to equal the number that hangs around the Sushi Monster’s neck.

**Reflection regarding the process of conducting this activity:**

**What went well?**

I was able to make sure that all the iPads were fully charged prior to the activity. Although I had planned on the class playing Sushi Monster, I did have a backup app in mind (Multiplication Blocks). After introducing both of these apps, some students wanted to try a different game. Although I had not planned to do so, I led the class into an introduction to Kodable. The transition went smoothly very smoothly and students were successful in following directions.

The students did not have any issues using the technology. Although some did not have much experience with iPads, they picked up on how to use them very quickly. There were no incidences where students were inappropriately handling the iPads.

About five students in the class had played Sushi Monster before. The other students learned how to play Sushi Monster very quickly and all students were engaged at the beginning of gameplay.

Although students were able to talk with their neighbors while playing the iPads, the noise level remained at an acceptable level. Students were willing to help a neighbor that was stuck on a problem or rejoice with them if they passed a level.

While changing apps from one game to another, students stayed on task and followed directions. Once again, they were able to quickly pick up on how to maneuver themselves on the iPads.

The mentor allowed ample time for the students to play and become familiar with the games. This allowed students to really get to practice with the content and get a feel for the program.

**What could be improved upon?**

It would have been helpful to have the iPads linked up to a smart board or Promethean board to make it easier for students to follow along while giving them instructions. However, I did not know if this was an option at this school - and if so I was unsure of how to use it. Having this option would help the students who weren't moving along as quickly as the others.

**What would you change next time?**

SushiMonster advanced to more difficult problems very quickly. For some students, this was enough to make them become unengaged from the activity.  After introducing the students to ~~a~~ two more iPad apps, Multiplication Blocks and Kodable, I allowed students to chose any app and play with it for the remaining time. For those students who wanted to play Sushi Monster but did not want the extreme multiplication problems, I allowed them to play it on the addition level. I would not necessarily change this next time, as it did flow smoothly, but it is important to note as something to be expected if done again.

A couple of students were asking if they could play some of the other games on the iPad. I would not allow them to do so; they were only to play with one of the 3 apps I introduced to the class. To prevent this in the future, it would maybe be a good idea to remove all games that are not educational in nature - or any other game you do not want them to play during this time - from the iPads in advance.